

SAAM – SICAM

Stream Methodologies Public Meeting

Angler Environmental

May 24, 2006



Methodology-SAAM

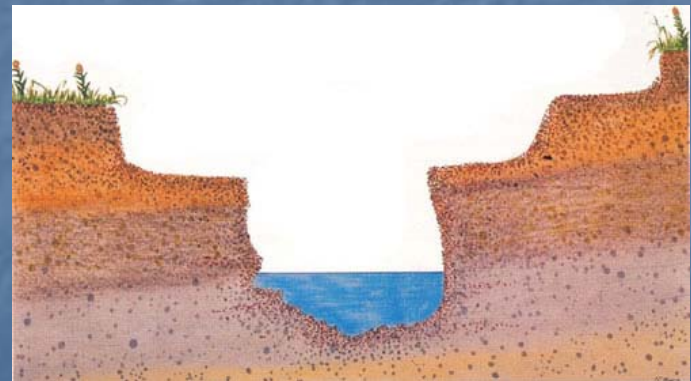
Pros

- “Quantitative” Assessment
- Complexity
- Greater Flexibility for Field Assessment

Methodology-SAAM

Cons

- Bankfull
- G (Incised) Stream Types
- TOLB and Bankfull Height
- Regional Curves



Images Courtesy of Rosgen

Bankfull Height



Bankfull Height



Bankfull Height



Methodology SAAM

Cons

- Too “Technical”
- % Difficult to Quickly Determine
- Within Category Scoring

Methodology-SICAM

Pros

- Repeatability
- Simplicity
- Ease of Use
- Time Involved in Field
- Less "Technical"



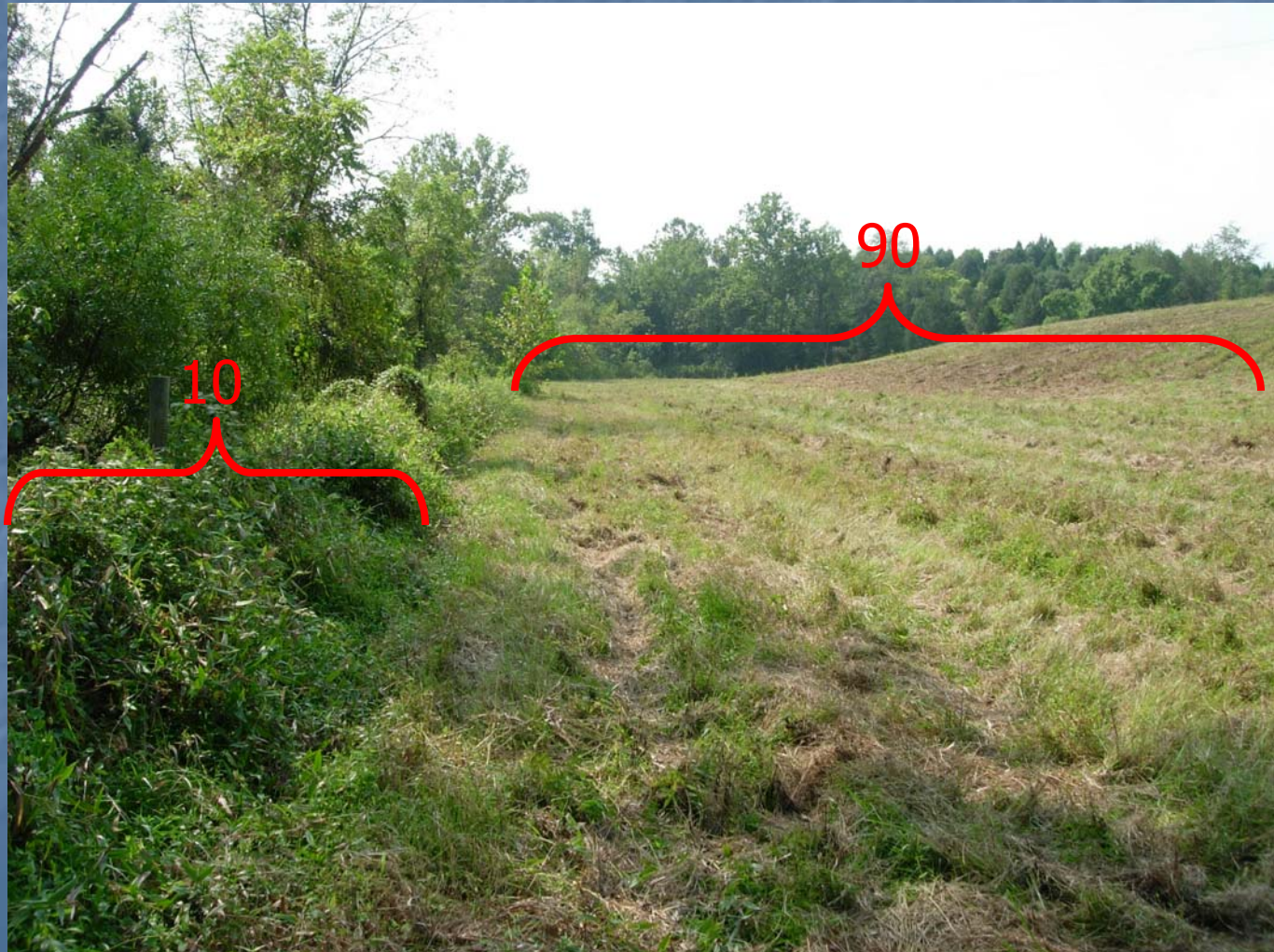
Methodology-SICAM

Cons

- Simplicity
 - Riparian Buffer
 - Inner 50 and Outer 50



Riparian Buffer



Methodology-SICAM

Cons

- Simplicity
 - In-Stream Habitat
 - Poor/Marginal/Good



Methodology-SICAM

- Difficulty in Differentiating Streams
- Limited Technical Evaluation
- Sub-Optimal RCI
 - Marginal Stream Conditions

Mitigation Requirements-SAAM

Pros

- Use of Forms

Cons

- Numerous Forms to Fulfill Requirements
- NO Predictability
- Restoration Evaluation (Form 2)

Mitigation Requirements-SICAM

Pros

- Predictability
- Limited Forms

Cons

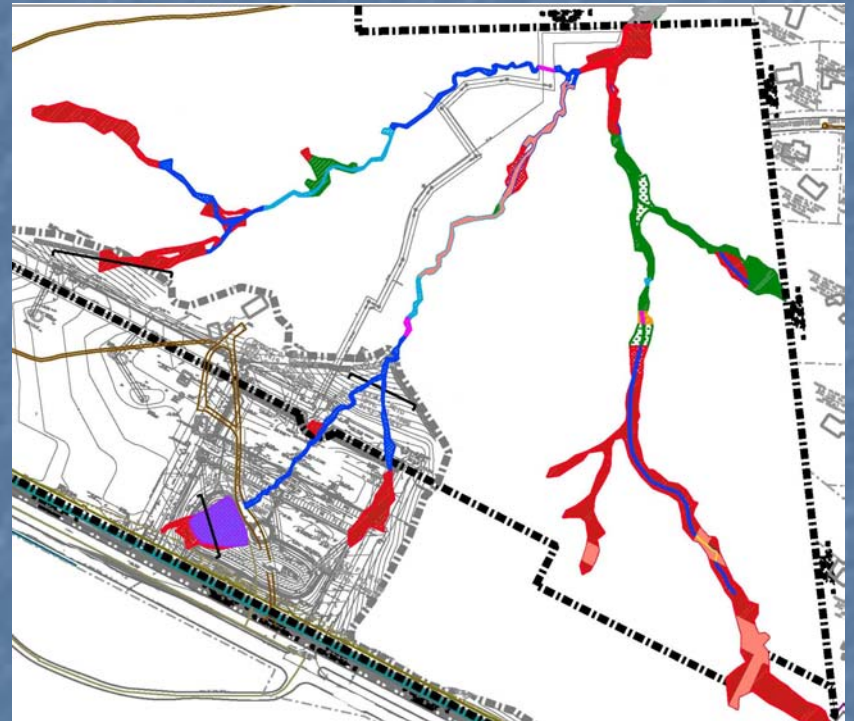
- Connection Between Forms

Case Study



Impacts

- Four (4) Impact Areas
 - 2050 linear feet
- Intermittent Streams
- 20-50 Acres Watersheds



Mitigation Requirement

- SICAM

- 2665 (CR) Total Compensation Requirement
- Stream Quality: Sub-Optimal

- SAAM

- 4930 (SCU) Total Stream Condition Units
- Stream Quality: Marginal

SICAM Requirements

Offsite Mitigation

- 4423 feet (2665 CC)

Onsite Preservation/Offsite Restoration

- Preservation – 2615 feet (299 CC)
- Restoration – 4020 feet (2366 CC)
 - Total of 6635 feet

SAAM Requirement

Offsite Mitigation

- 3916 feet

Onsite Preservation/Offsite Restoration

- Preservation - 2615 feet
- Restoration – 3022 feet
 - Total of 5637 feet

Preservation

- SICAM

- 5:1 to 20:1
- 2615 feet equates to 299 CC

- SAAM

- 3:1 to 5:1
- RCI ratio
- 2615 feet equates to 814 feet of credit



Conclusions

- Both Accurately Assess Stream Condition
- General Similarities in Condition and Mitigation Requirements
- SICAM: Better Repeatability and Predictability
- SAAM: No Predictability

Recommendations

- Modified Version of SICAM
 - Elaborate on Stream Assessment Parameters
 - Example: In-Stream Habitat
 - Good/Marginal/Poor
 - Example: 10'/90' Riparian Buffer
 - Inner 50 and Outer 50

Recommendations

- Watershed Ratio and Stream Type
- Weighted Drainage Area
- Perennial and Intermittent Streams
- Mitigation versus Impacts
- “Compensation Factor”



Thank You

Questions?

